IN THE CLAIMS:

Claim 1 (previously presented): An operating system management system for managing a plurality of operating systems, the plurality of operating systems being replaced alternately and operated in a time-sharing manner, with all of said plurality of operating systems booted up at the same time, said plurality of operating systems being operated as software of a common computing unit, comprising:

a recording unit for recording operation information transferred from an operation information memory for storing an operation state of each of said operating systems, said operation information, obtained through a synchronization operation operating the plurality of operating systems at the same time during a time-shared switching operation thereof, and being assumed as a reference to other operation information items corresponding to each other and regarded to have been generated approximately at the same time; and

a searching unit for searching operation information assumed as a reference to said other operation information items from said operation information items recorded in said operation information memories of said operating systems;

wherein said management system finds a sequence of other operation information items recorded in said operation information memories of said operating systems according to the correspondence to said searched operation information.

Claim 2 (previously presented): An operating system management system for managing a plurality of operating systems, the plurality of operating systems being replaced alternately and operated in a time-sharing manner, with all of said plurality of operating systems booted up at the same time, said plurality of operating systems being operated as software of a common computing unit,
comprising:

a recording unit for recording operation information of each operating system, transferred from a memory for storing operation information thereof and a time at which said operation information was generated, transferred from each operating system for recording said operation information; and

a memory for storing time lag information among said operating systems, obtained through a synchronization operation operating the plurality of operating systems at the same time during a time-shared switching operation thereof,

wherein said management system finds a sequence of operation information items generated and recorded in said operation information memories of said operating systems with use of said times at which said information items were generated and recorded in said operation information memories of said operating systems and said time lag information.

Claim 3 (previously presented): An operating system management system for managing a plurality of operating systems, the plurality of operating systems being replaced alternately and operated in a time-sharing manner, with all of said plurality of operating systems booted up at the same time, said plurality of operating systems being operated as software of a common computing unit, comprising:

an operation recording unit for recording operation information of each operating system, transferred from an operation information memory thereof;

wherein said operation recording unit adds a counter value to said operation information, said counter value being updated when operation information of corresponding one of said operating systems is recorded during a synchronization operation causing operation of the plurality of operating systems at the same time during a time-shared switching operation thereof, and; and

said management system finds a sequence of operation information items recorded in said first and second operating systems with use of a counter value of operation information recorded in the operation information memory of corresponding one of said operating systems.

Claim 4 (previously presented): An operating system management system according to claim 1;

wherein said operation information is at least any one of an operating system switching trace, a synchronization trace, an inter-operating system communication trace.

Claim 5 (previously presented): An operating system management system for managing first and second operating systems, the first and second operating systems being replaced alternately and operated in a time-sharing manner, with both of said operating systems booted up at the

same time, said plurality of operating systems being operated as software of a common computing unit,

comprising:

a recording unit for recording an operation information item, obtained through a synchronization operation operating the plurality of operating systems at the same time during a time-shared switching operation thereof, to be assumed as a reference of times of other operation information items regarded to have been generated approximately at the same time and recorded in operation information recording memories of said first and second operating systems so as to correspond to each other; and

a searching unit for searching an operation information item assumed as a reference to said approximately same times from operation information items recorded in said operation information memories of said first and second operating systems;

wherein said system displays said searched operation information item so as to be highlighted and disposed together with other information items in parallel and displays other operation information items in an order in which they are generated on the basis of the correspondence to said searched operation information item.

Claim 6 (previously presented): A trace log management system employed for a computer system in which a plurality of operating systems are installed, the plurality of operating systems being replaced alternately and operated in a time-sharing manner, with all of said plurality of operating systems booted up at the same time, said plurality of operating systems being operated as software of a common computing unit, and each of said operating systems having operation trace information;

wherein said log management system displays both operation trace information item of an operating system and operation information items of another operating system at a timing, obtained through a synchronization operation operating the plurality of operating systems at the same time during a time-shared switching operation thereof, and assumed as a reference of both of said operation information items corresponding to each other and regarded to have been generated approximately at the same time.

Claim 7 (previously presented): An operating system management method for managing a plurality of operating systems, the plurality of operating systems being replaced alternately and operated in a time-sharing manner, with all of said plurality of operating systems booted up at the same time, said plurality of operating systems being operated as software of a common computing unit,

comprising:

enabling each of a plurality of said operating systems to record its operation information item corresponding to operation information items of other operating systems and to be assumed as a reference of operation information items of those other operating systems, regarded to have been generated approximately at the same time;

finding the correspondence of an operation information item to be assumed as a reference of said approximately same times from operation information items recorded by said other operating systems through a synchronization operation operating the plurality of operating systems at the same time during a time-shared switching operation thereof; and

finding a sequence of operation information items recorded by said other operating systems according to said found correspondence.

Claim 8 (previously presented): An operating system management method for managing a plurality of operating systems, the plurality of operating systems being replaced alternately and operated in a time-sharing manner, with all of said plurality of operating systems booted up at the same time, said plurality of operating systems being operated as software of a common computing unit,

comprising:

enabling each of a plurality of said operating systems to record its operation information item corresponding to operation information items of said other operating systems, through a synchronization operation operating the plurality of operating systems at the same time during a time-shared switching operation thereof, and to be assumed as a reference of said other operation information items regarded to have been generated approximately at the same time with reference to a counter value to be updated when an operation information item of said operating system is recorded; and

finding a sequence of recorded operation information items in order they are generated with use of a size of said counter value added to said operation information of each of a plurality of said operating systems.

Claim 9 (previously presented): An operating system management system according to claim 1 wherein each operating system stores operation trace information.

Claim 10 (previously presented): An operating system management system according to claim 9 wherein a control program is provided on a side of the operating systems closer to a computer.

Claim 11 (previously presented): An operating system management system according to claim 10, wherein a trace log editing program is operated under control of one of the operating systems.

Claim 12 (previously presented): An operating system management system according to claim 11, wherein operation trace information of the other of the operating systems is communicated to the trace log editing program through the control program.

Claim 13 (previously presented): An operating system management system according to claim 1, wherein a managed time of one of the operating systems and a managed time of the other operating systems are displayed in association with a trace name.

Claim 14 (previously presented): An operating system management system according to claim 10, wherein the control program manages managed times of one of the operating systems and the other thereof.

Claim 15 (previously presented): An operating system management system according to claim 14, wherein the time management is performed on the basis of a counter of the control program.

Claim 16 (previously presented): An operating system management system according to claim 1, wherein time management is performed by a program which is operated by a third operating system operating under a second computer.

Claim 17 (previously presented): An operating system management system according to claim 1, wherein the operation information comprises at least one of an operating system switching trace, a synchronization trace and an inter-operating system communication trace.